

What is claimed is:

1. An antenna, comprising:

5           a planar element that is fed at a feed position; and  
              a ground pattern that is juxtaposed with said planar element,  
and

              wherein as being farther away from a straight line passing  
through said feed position, a distance between said planar element  
and said ground pattern is gradually increased to become saturated.

10

2. The antenna as set forth in claim 1, wherein a side edge portion  
of said planar element is constituted by either one of a curved  
line and line segments, which are connected while their  
inclinations are changed stepwise, and said planar element is  
15 formed on or inside a dielectric substrate.

20           3. The antenna as set forth in claim 2, wherein said dielectric  
substrate further comprises a resonant element connected to an end  
point of said planar element on said straight line passing through  
said feed position of said planar element.

4. The antenna as set forth in claim 3, wherein said resonant  
element is symmetrical with respect to said straight line passing  
through said feed position of said planar element.

25

5. The antenna as set forth in claim 3, wherein said resonant  
element is asymmetrical with respect to said straight line passing  
through said feed position of said planar element.

30           6. The antenna as set forth in claim 3, wherein said planar element  
and said resonant element is formed in a same layer of said  
dielectric substrate.

7. The antenna as set forth in claim 3, wherein said planar element and at least a part of said resonant element is formed in different layers.

5

8. The antenna as set forth in claim 3, wherein when said planar element and said resonant element are projected on a virtual plane parallel to layers in which the respective elements are formed, said resonant element is disposed without overlapping with a 10 predetermined region defined beside said planar element projected on said virtual plane.

9. The antenna as set forth in claim 3, wherein when said planar element and said resonant element are projected on a virtual plane 15 parallel to layers in which the respective elements are formed, said resonant element is disposed without overlapping with at least a region at a planar element side with respect to a half line, which is parallel to said straight line passing through said feed position of the projected planar element and extends in a feed 20 position direction from a start point that is an end point of said side edge portion of the projected planar element and is a point remoter from said feed position.

10. A dielectric substrate for an antenna, comprising:

25        a dielectric layer; and

            a layer including a conductive planar element having a side edge portion constituted by either one of a curved line and line segments, which are connected while their inclinations are changed stepwise, and

30        wherein a distance between a side surface closest to a feed position of said planar element among side surfaces of said dielectric substrate and said side edge portion is gradually

increased to become saturated as being farther away from a straight line passing through said feed position.

11. The dielectric substrate as set forth in claim 10, further  
5 comprising a resonant element connected to an end point of said planar element on said straight line passing though said feed position of said planar element.

12. The dielectric substrate as set forth in claim 11, wherein said  
10 resonant element is symmetrical with respect to said straight line passing through said feed position of said planar element.

13. The dielectric substrate as set forth in claim 11, wherein said resonant element is asymmetrical with respect to said straight line  
15 passing through said feed position of said planar element.

14. The dielectric substrate as set forth in claim 11, wherein said planar element and said resonant element is formed in a same layer of said dielectric substrate.

20

15. The dielectric substrate as set forth in claim 11, wherein said planar element and at least a part of said resonant element may be formed in different layers of said dielectric substrate.

25 16. The dielectric substrate as set forth in claim 11, wherein when said planar element and said resonant element are projected on a virtual plane parallel to layers in which the respective elements are formed, said resonant element is disposed without overlapping with a predetermined region defined beside said planar element  
30 projected on said virtual plane.

17. The dielectric substrate as set forth in claim 11, wherein when  
said planar element and said resonant element are projected on a  
virtual plane parallel to layers in which the respective elements  
are formed, said resonant element is disposed without overlapping  
5 with at least a region at a planar element side with respect to a  
half line, which is parallel to said straight line passing through  
said feed position of the projected planar element and extends in a  
feed position direction from a start point that is an end point of  
said side edge portion of the projected planar element and is a  
10 point remoter from said feed position.